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EXAMINER				
TROY, DANIEL J				
ART UNIT		PAPER NUMBER		
3641				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/574,532

Applicant(s)

BANNASCH ET AL.

Examiner

DANIEL J. TROY

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/2/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 9/1/2008 and 5/11/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 13-26 in the reply filed on June 2, 2008 is acknowledged. The traversal is on the ground(s) that the examiner will search the same classes of art. This is not found persuasive because two separate searches, including text searching, is required for the now restricted patentably distinct inventions.
2. The requirement is still deemed proper and is therefore made FINAL.
3. Claims 1-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected method, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on June 2, 2008.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "unfolding corner reflectors", "launching platform", "sensors", "electronic launching means", "elevation drive", "azimuthal drive", "shock absorbers", "STEALTH trimmings", "electronic delay elements", "directional drives", "a corner reflector", "eight hedral corner reflectors", "nettings or foils", "two corresponding coils", and "gas generators" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" has been used to designate two different objects. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 1, 2, 3, 4, and 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

9. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 14, 16, 20-23, and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject

matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

11. Regarding claim 14, the arrangement and/or placement of the STEALTH trimmings have not been explained adequately to allow one of ordinary skill in the art to make the invention.

12. Regarding claim 16, the electric, hydraulic, and pneumatic directional drives have not been explained adequately to allow one of ordinary skill in the art to make the invention. The examiner further notes that there is no description of a drive that can produce an accelerations of $50 \frac{\text{deg}}{\text{s}^2}$.

13. Regarding claim 20, the decoy unfolded by means of gas has not been explained adequately to allow one of ordinary skill in the art to make the invention.

14. Regarding claim 21, the corner reflector, eight tri-hedral corner reflectors, nettings, and foils have not been explained adequately to allow one of ordinary skill in the art to make the invention.

15. Regarding claim 22, the decoy unfolded by inflating with hot gases has not been explained adequately to allow one of ordinary skill in the art to make the invention.

16. Regarding claim 23, the decoy unfolded by inflating by a pyrotechnical gas generator has not been explained adequately to allow one of ordinary skill in the art to make the invention.

17. Regarding claim 25, the decoy ammunitions formed to have an identical velocity of departure has not been explained adequately to allow one of ordinary skill in the art

to make the invention. The examiner notes that there is no indication of the detailed makeup of neither the decoy ammunition nor the ignition means. Also there has been no enablement in the application involving the "forming" of the decoy elements.

18. Claims 14, 16, and 20-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

19. Regarding claim 14, the arrangement and/or placement of the STEALTH trimmings have not been explained adequately to allow one of ordinary skill in the art to make the invention. Further, the randomly adjustable temporal interval; electric launching means; and shock absorbers are not described in the specification in such a way to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention.

20. Regarding claim 16, the electric, hydraulic, and pneumatic directional drives have not been explained adequately to allow one of ordinary skill in the art to make the invention. The examiner further notes that there is no description of a drive that can produce an accelerations of $50 \frac{\text{deg}}{\text{s}^2}$.

21. Regarding claim 20, the decoy unfolded by means of gas has not been explained adequately to allow one of ordinary skill in the art to make the invention.

22. Regarding claim 21, the corner reflector, eight tri-hedral corner reflectors, nettings, and foils have not been explained adequately to allow one of ordinary skill in the art to make the invention..
23. Regarding claim 22, the decoy unfolded by inflating with hot gases has not been explained adequately to allow one of ordinary skill in the art to make the invention.
24. Regarding claim 23, the decoy unfolded by inflating by a pyrotechnical gas generator has not been explained adequately to allow one of ordinary skill in the art to make the invention.
25. Regarding claim 25, the decoy ammunitions formed to have an identical velocity of departure has not been explained adequately to allow one of ordinary skill in the art to make the invention. The examiner notes that there is no indication of the detailed makeup of neither the decoy ammunition nor the ignition means. Also there has been no enablement in the application involving the "forming" of the decoy elements.
26. The following is a quotation of the second paragraph of 35 U.S.C. 112:
27. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
28. Claims 13-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
29. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

30. Claim 13 recites the limitations "in particular fire control calculator", "the fire control calculator", "the respective missile type", the respective attack structure", "the delay time", "the identified missile" and "the attack structure". There is insufficient antecedent basis for these limitations in the claim. Further it is unclear what the statement "a suitable interface which transmits the delay time of the decoy ammunition(s) from launch to activation of the effective charge immediately prior to launch from the decoy launcher to the decoy ammunition(s)" is specifically claiming.

31. Regarding claim 14, it is unclear what is meant by "randomly adjustable" and "single decoy ammunitions".

32. Claim 14 recites the limitations "the single decoy ammunitions", "the delay time", "the effective charge", "the decoy launcher". There is insufficient antecedent basis for these limitations in the claim.

33. Claims 16 and 20 recite the limitation "the decoy launcher". There is insufficient antecedent basis for this limitation in the claim.

34. Regarding claim 18, the statement "in particular NTDS, RS22, RS422, EHTERNET, IR, BLUETOOTH" is indefinite because it is unclear whether all or just one, none, or all of the elements are required.

35. Regarding claim 19, it is unclear whether Airborne Radar Reflectors are required or merely suggested thus rendering the claim indefinite. Further it is unclear whether or not the terminology in parenthesis is or is not intended to be limiting to the claim language.

36. Regarding claims 14, 17, and 21, the term "preferably" renders the claims indefinite because it is unclear if the limitations that follow are required.
37. Regarding claim 21, the term "preferred" renders the claim indefinite because it is unclear if the limitations that follow are required.
38. Regarding claim 26, it is unclear whether the personal computer, micro-controller control or SPS control are being claim "as" the fire control calculator or in combination "with" the fire control calculator thus rendering the claim indefinite. Further it is unclear as to whether or not the CAN bus is intended to be limiting to the claim language.

Claim Rejections - 35 USC § 103

39. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

40. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

41. Claims 13, 15, 18, 19, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art in the specification) in view of Salzeder (US Publication Number 2002/0149510 A1).
42. Regarding claim 13, Herrmann discloses, a system for protecting ships against terminal homing phase-guided missiles comprising a target data analysis system (Page 3 L19-21) comprising a computer (Page 3 L24) sensors for detecting terminal homing phase-guided missiles and its expected trajectory (Page 3 L23); means to measure the

wind speed and direction (P3 L29-30); motion and/or navigation sensors for detecting the ship's own data: traveling speed, direction of travel, rolling and pitching motions (Page 3 L31-33); a fire control calculator which inherently communicates with the computer (Page 4 L1-4); at least one decoy launcher arranged on the ship and dirigible in azimuth and elevation (Page 3 L27), but lacks an ammunition types comprise RF, IR, and combined RF/IR ammunitions as well as unfolding reflectors; the computer including a database in which appropriate decoy patterns for the respective missile type and the respective attack structure are stored which allow to generate a particular decoy pattern.

43. Salzeder teaches that it is known in the art to have a target data analysis for discriminating between genuine and spurious target; ammunition types comprise RF, IR, and combined RF/IR ammunitions (P [0038]) as well as reflectors (P [0048]); the computer including a database in which appropriate decoy patterns for the respective missile type and the respective attack structure are stored which allow to generate a particular decoy pattern (P [0046] and P [0050]). The use of a target data analysis for discriminating between genuine and spurious target; ammunition types comprise RF, IR, and combined RF/IR ammunitions as well as reflectors; the computer including a database in which appropriate decoy patterns for the respective missile type and the respective attack structure are stored which allow to generate a particular decoy pattern conserves decoy ammunition by only firing target relevant decoys.

44. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Hermann, by using a target data

analysis for discriminating between a genuine and spurious target; ammunition types comprise RF, IR, and combined RF/IR ammunitions as well as reflectors; the computer including a database in which appropriate decoy patterns for the respective missile type and the respective attack structure are stored which allow to generate a particular decoy pattern similar to that disclosed by Salzeder, to conserve decoy ammunition.

45. Regarding claims 15 and 24, Salzeder teaches the decoy ammunitions comprise integrated delay elements freely programmable by means of the fire control (P [0050] describes the "walk-off" which includes delays programmed in the ammunitions).

46. Regarding Claim 18 Herrmann in view of Salzeder discloses the claimed invention except for NTDS, RS22, RS422, EHTERNET, IR, or BLUETOOTH data interfaces. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use NTDS, RS22, RS422, EHTERNET, IR, or BLUETOOTH data interfaces since it was known in the art that any of these listed data interfaces can be used to transfer data from one device to another.

47. Regarding claim 19, Salzeder teaches radar reflectors (P [0031]).

48. Regarding claim 26, Hermann teaches the fire control calculator transmitting the determined data for deploying the decoy formation to the decoy launchers (Page 4 L3-4). A standardized data interface is inherent to any electronic system, having a non-standardized data interface would only increase the complication of the system by including unnecessary conversion.

49. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art) in view

of Salzeder (US Publication Number 2002/0149510 A1) in further view of Graf et al. (US Patent Publication 2007/0151493 A1).

50. Regarding claim 14, Salzeder teaches, a launching platform capable of carrying a single decoy ammunition, an electric launching means ("computer" P [0025]) capable of launching a single decoy ammunition in temporal intervals (P [0050]), an elevation drive and an azimuthal drive (P [0050]), a base platform for receiving the drives, and a suitable interface which transmits the delay time ("timing" P [0050]) to the decoy ammunition, but lacks shock absorbers and STEALTH trimmings.

51. Graf teaches that it is known in the art to use shock absorbers (Abstract) and STEALTH trimmings (P [0030]). The use of shock absorbers and STEALTH trimmings provide better stabilization of the system as well as reduce the risk of enemy detection.

52. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Herrmann in view of Salzeder, by using shock absorbers and STEALTH trimmings similar to that disclosed by Graf, to provide better stabilization of the system as well as reduce the risk of enemy detection.

53. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art) in view of Salzeder (US Publication Number 2002/0149510 A1) in further view of Darnall (US Patent Number 7086318 B1).

54. Regarding claim 16, Herrmann in view of Salzeder discloses an apparatus as described previously, but lacks a drive with an angular acceleration of at least $50 \frac{\text{deg}}{\text{s}^2}$.

55. Darnall teaches that it is known in the art to use a drive with an angular acceleration of at least $50 \frac{\text{deg}}{\text{s}^2}$ (C3 L38). The use of a drive with an angular acceleration of at least $50 \frac{\text{deg}}{\text{s}^2}$ can help the system quickly reach the desired firing position.

56. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Herrmann in view of Salzeder, by using a drive with an angular acceleration of at least $50 \frac{\text{deg}}{\text{s}^2}$ similar to that disclosed by Darnall, to help the system quickly reach the desired firing position.

57. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art) in view of Salzeder (US Publication Number 2002/0149510 A1) in further view of Maury (US Patent Number 4222306).

58. Regarding claim 17, Herrmann in view of Salzeder discloses an apparatus as described previously, but lacks the use of the ship's on-board reconnaissance radars.

59. Maury teaches that it is known in the art to use of the ship's on-board reconnaissance radars (C13 L41-46). The use of the ship's on-board reconnaissance radars reduces cost by only using one radar system.

60. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Herrmann in view of Salzeder, by using the ship's on-board reconnaissance radars similar to that disclosed by Maury, to reduce costs.

61. Claims 20, 22, and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann ("tarnen und Tauschen bei der Marine" - applicant's admitted prior art) in view of Salzeder (US Publication Number 2002/0149510 A1) in further view of Thornburg (US Patent Number 4852456).

62. Regarding claims 20, 22, and 23, Herrmann in view of Salzeder discloses an apparatus as described previously, but lacks unfolding by means of gases.

63. Thornburg teaches that it is known in the art to unfold by means of gases. The use of unfolding by gases provides a fast and reliable means for unfolding the decoy.

64. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Herrmann in view of Salzeder, by using gases as unfolding means similar to that disclosed by Thornburg, to provide a fast and reliable means for unfolding the decoy.

65. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL J. TROY whose telephone number is (571)270-3742. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

66. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (571) 272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

67. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DJT/

/Stephen M. Johnson/
Primary Examiner, Art Unit 3641